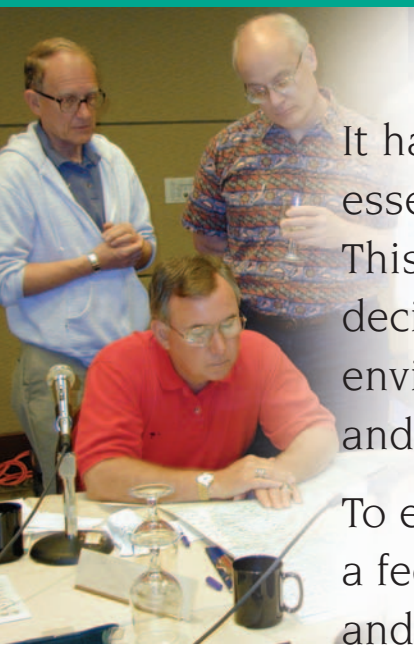
strengthening scientific advice for management



It has long been recognized that strong science is an essential element of successful fisheries management. This is especially true for marine fisheries, where policy decisions can have considerable social, economic, and environmental consequences on coastal communities and marine ecosystems.

To ensure quality information is used in decision-making, a federal law, the Magnuson-Stevens Fishery Conservation and Management Act, requires that the best scientific information available serve as the basis for all management programs that govern fisheries. A seemingly straightforward issue, there is a perception that scientific advice is ignored by some fishery managers in the face of pressing social, economic or political considerations. As a result,

policymakers, the fishing industry, scientists and environmental groups are debating what constitutes the "best available" information and who makes that determination.

The Magnuson-Stevens Act established a framework for managing U.S. fisheries with NOAA Fisheries Service at the center of a nationwide system of regional councils charged with developing fishery management programs. The act also specifies that each council establish a scientific and statistical committee (SSC) to assist in the development, collection, and evaluation of all relevant information to be used in the councils' management programs. Controversy has arisen over the lack of an overarching structure to address matters of science and differences in regional approaches, both of which have been perceived as shortcomings in the current process.

Members of Congress have acknowledged the need for change by including provisions related to the quality of science and scientific advice used to manage fisheries in at least six bills last year. Reauthorization of the Magnuson-Stevens Act in 2005 could result in an adjustment to the current process or a major overhaul of past policy.

key issues and controversies

Scientific and Statistical Committees

While the job of the SSCs is specified, the Magnuson-Stevens Act does not require the regional councils to follow the advice of their science committees, nor is a process in place to ensure that SSC members have the proper scientific credentials and are free from conflicts of interest. The U.S. Commission on Ocean Policy made recommendations to strengthen the use of council SSCs by requiring a more rigorous member selection process, screening for conflicts of interest and providing compensation to SSC members, but without providing details about any existing problems.

Conservation vs. Allocation

Going a step further, the Commission on Ocean Policy proposed that each SSC, rather than the regional councils, should determine allowable biological catch levels. While not required by law, some councils have already taken this step. For example, the North Pacific Council has a history of setting harvest levels at or below the level recommended by its SSC.

An alternative view is that scientific advice, which is critical to successful management, should be an integral part of the council process rather than a separate element to be considered in overall decision-making. Even setting annual catch limits often requires a council to judge uncertain or conflicting science. Aside from annual catch limits, most management decisions involve aspects of both conservation and allocation and are often impossible to address as isolated issues. Approval or disapproval of council decisions by the U.S. Secretary of Commerce provides a final safeguard.

Need for Independent Review

Although all councils already employ procedures to obtain independent peer reviews of stock assessments and analysis, this does not necessarily occur through the SSCs. Recognizing that change could increase awareness that the fishery management councils base decisions on the best available scientific information, discussions by the councils themselves have centered on whether and what standardizations would improve efficiencies and quality control, and contribute to a more robust process.

Citing the need to continue to take steps to improve fisheries management, the President's U.S. Ocean Action Plan concurred by stating "standard review procedures and guidelines will increase the efficient use of the best available scientific information for management considerations." The administration plan calls for guidelines and procedures for the development and application of scientific advice for fisheries management decisions, in consultation with the regional councils, interstate fisheries commissions, stakeholders and other agencies.

story ideas

Additional Areas of Interest

Other subjects are being discussed in the debate about science. The range of issues involves proposals about which there is little debate, while others evoke strong opinions across a spectrum of participants in the fishery management process.

- **Default measures to ensure progress.** If a plan is not in place in a timely fashion, NOAA Fisheries Service would be required to suspend all fishing on a given stock until it is able to review the adequacy of a management plan.
- **Making research relevant.** The fishery management councils and their SSCs would develop an annual, prioritized list of management information needs and provide it to NOAA Fisheries Service. In turn, the agency would incorporate these needs to the maximum extent possible in designing its research, analysis, and data collection programs.
- **Saltwater fishing licenses.** Working with states and interstate fisheries commissions, NOAA Fisheries Service would require that all saltwater anglers obtain licenses to improve in-season data collection on recreational fishing.
- **Expanded cooperative research.** NOAA Fisheries Service would create an expanded, regionally-based cooperative research program that coordinates and funds collaborative projects between scientists and commercial, tribal, and recreational fishermen.

- Should separation of science and management occur, and if so, how would that be accomplished? Should councils that use their SSCs to set overfishing levels and allowable biological catches be used as models for other councils?
- Is the separation of science and management realistic for other than quota management? What are the concerns and issues that make this question potentially complicated?
- Should the Magnuson-Stevens Act be revised to strengthen scientific advice? What steps should be taken to ensure public and stakeholder confidence that fisheries are managed on the basis of the best available scientific information?
- Is the available science adequate for managers to stem overfishing? If not, will additional independent reviews of scientific information or other steps contribute to a remedy? How is this issue addressed in other countries that manage economically and socially important fishery resources?

information

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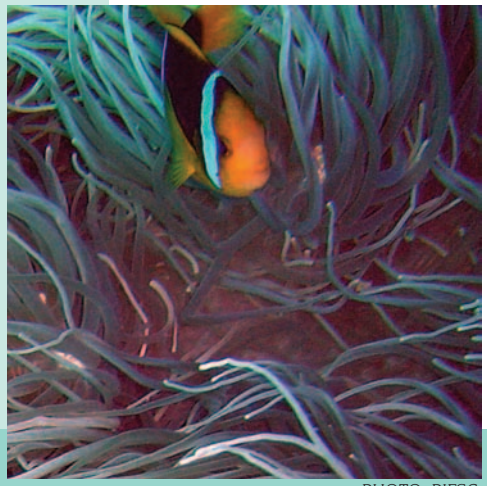

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useful information

Bush Administration's U.S. Ocean Action Plan and the Report of the U.S. Commission on Ocean Policy

http://ocean.ceq.gov/

National Academy of Sciences Report on Improving the Use of the "Best Scientific Information Available" Standard in Fisheries Management

http://books.nap.edu/catalog/11045.html

Magnuson Act Reauthorization information

http://www.nmfs.noaa.gov/fact_sheets.html

For more information about this conference topic

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